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RUEHKA/AMEMBASSY DHAKA 5020
RUEHNE/AMEMBASSY NEW DELHI 5073
RUEHUL/AMEMBASSY SEOUL 8671
RUEHKO/AMEMBASSY TOKYO 6240
RUEHCN/AMCONSUL CHENGDU 1613
RUEHCHI/AMCONSUL CHIANG MAI 1887
RUEHCI/AMCONSUL KOLKATA 0461
RUEAIIA/CIA WASHDC
RUEATRS/DEPT OF TREASURY WASHDC
RUEKJCS/DIA WASHDC
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RHEHNSC/NSC WASHDC
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RUEKJCS/JOINT STAFF WASHDC
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C O N F I D E N T I A L SECTION 01 OF 03 RANGOON 000815

SIPDIS

STATE FOR EAP/MLS; INR/EAP; OES FOR JMIOTKE AND ACOVINGTON;
EAP FOR JYAMAMOTO; EEB FOR TSAEGER
PACOM FOR FPA;
TREASURY FOR OASIA:SCHUN

E.O. 12958: DECL: 10/20/2018
TAGS: ECON ENRG PGOV SENV BM
SUBJECT: DAMMING BURMA'S RIVERS

REF: RANGOON 348

Classified By: Economic Officer Samantha A. Carl-Yoder for Reasons 1.4
(b and d)

Summary

¶1. (C) Burma suffers from an acute electricity shortage, producing less than half of nationwide demand, according to internal Ministry of Electric Power-1 (MEP-1) documents. The GOB is turning to hydropower to make up at least part of the shortfall: it is currently constructing 19 dams throughout the country in partnership with both local and foreign companies, and has signed MOUs for 20 additional projects. While joint venture agreements with foreign companies vary widely, the majority of contracts stipulate that the GOB will receive up to 25 percent of generated electricity and will either sell or provide the remaining power to foreign investors as compensation - meaning that much of the increased electricity production will flow outside Burma's borders. End Summary.

The Lights Go Out in Burma

¶2. (SBU) Burma's electricity supply is generated by a mix of gas/diesel dual-fired power plants, hydropower plants, steam turbine plans, and two coal-fired plants. MEP-1 distributes electricity through a national grid, which currently connects only half the country. Burma has 26 power stations, 11 hydro stations, nine gas powered stations, and six steam turbine power stations. There are 52 existing substations, which provide power to some of Burma's more remote locations.

¶3. (SBU) These generating plants fall well short of meeting Burma's domestic needs. The country suffers from an acute power shortage, particularly during the dry season (November-May), when hydropower plants have less available water to produce electricity. In 2007, Burma produced more than 6,200 megawatts of electricity a day, insufficient to meet nation-wide demand of 15,000 megawatts/day. The Ministry of Electric Power-1 (MEP-1) used the majority of electricity to power Nay Pyi Taw, the only location in Burma that receives steady electricity 24 hours a day. Burma's larger cities, including Rangoon, Mandalay, and Taunggyi, receive between six to eighteen hours a day, depending on the season. The rest of the country receives far less; many rural areas have power less than four hours a day. Many

companies, schools, and hospitals rely on diesel generators for power; the Burmese people, particularly the poor, use candles or batteries. According to Nay Linn, Executive Director of Genergy International (a private generator sales company), the generator business is booming.

Damming Burma's Rivers

¶4. (SBU) According to MEP-1, Burma currently has more than 100 hydropower dams throughout the country, most of which are small or medium-sized. Lawpitha Dam, located along the Salween River in Kachin State, is the largest dam in Burma, with an installed capacity of 190 megawatts/day. The GOB estimates that an expansion of Burma's hydro resources could produce up to 40,000 megawatts/day, and it plans to improve hydropower capabilities over the next 20 years by constructing more than 250 hydroelectric projects along

Burma's rivers (Ref A).

¶5. (C) According to internal MEP-1 documents, the GOB is currently partnering with local and foreign companies to construct 19 hydropower dams, with a capacity ranging between 30 and 7,000 megawatts/day, along the Irrawaddy, Salween, and Chindwin Rivers. The largest project is Tasang Dam, located in Shan State along the Salween River. Upon completion it will be the largest dam in Southeast Asia, with an estimated installed capacity of 7,000 megawatts/day. The majority of these projects, listed below, should come online by 2012, according to MEP-1 projections.

Burma's Current Dam Projects

Name	Capacity (MW)	Location	Est. Date Completion
Kabaung	30	Shan State	2009
Kentaung	54	Shan State	2010
Shweli	600	Shan State	2012
Pathi	3	Shan State	2010
Kun	60	Bago Div.	2012
Phyu	40	Shan State	2012
Kyauk Naga	75	Bago Div.	2012
Yei Ywa	790	Mandalay Div.	2009
That Htay	102	Irrawaddy Div.	2009
Paungluang	140	Shan State	2009
Tasang	7110	Shan State	2020
Kyeion Kyee-wa	70	Magwe Div.	2008
Lower Bu-ywa	41	Magwe Div.	2009
Myogyi	30	Shan State	2009
Manipura	340	Chin State	2010
Thauk Yegat	140	Karen State	2011
Nancho	40	Mandalay Div.	2009
Thamanthi	1200	Chin State	2015
Ann	15	Sagaing Div.	2009

¶6. (C) According to MEP-1, the GOB has received pledged and actual foreign direct investment (FDI) for all of the above-mentioned projects, although actual figures are not available to us. The majority of funding comes from Thai and Chinese companies, although Japanese and Indian companies are also involved in several hydropower projects.

¶7. (C) In addition to these dam projects, MEP-1 has signed MOUs and joint venture agreements with local and foreign companies to construct more than 20 additional hydropower dams in the next 20 years. According to MEP-1, more than 15 Chinese companies, including China Gezhouba Group Col, Sinohydro, China International Trust and Investment Col, China National Heavy Machinery Col, and the Yunan Power Grid Co., have signed hydropower contracts with the regime in the past three years. The regime-controlled New Light of Myanmar reported that in the last two months, MEP-1 signed a joint venture with Indian-owned National Hydroelectric Power Corp. (NHPC) for the Thamanthi and Shwesayay Dams; with Singapore's Windfall Energy Services Ltd. and Thailand's Italian-Thai Development Public Co. for the Taninthayi hydropower project; and with China Datang Corp. for the exploration and development of the Day Pein 1 and 2 dams.

High Cost of Joint Ventures

¶8. (C) Although the Burmese Government claims that all of the electricity generated by these dams will be used domestically, the joint venture contracts signed with foreign companies, primarily from China and Thailand, alXD'QUQ'!Oet"o export the majority of electricity produced as compensation for their investment. According to Kyaw Win Aung, an executive engineer on the Yei Ywa dam project in Mandalay, the GOB will receive up to 25 percent of power generated by the new plant. The Chinese investors in the Yei Ywa project -- China Heavy Machinery Corp. (CHMC), China Datang Corp. (CDGC), China Gezhouba Group, and Sinohydro, among others - are taking the lead on the majority of the construction, working with several Burmese companies. Kyaw Win Aung informed us that the Chinese firms will be paid in kind, taking control of up to 75 percent of electricity produced, which they can either sell to the GOB or send to China via newly-constructed power lines (septel).

¶9. (C) According to Yangon City Electricity Supply Board Secretary Lt. Colonel Maung Maung Latt (Rtd.), some joint venture agreements require the foreign company to pay for a certain amount of electricity that they receive as part of the arrangement with the GOB, but at below-market prices. Burmese companies that partner with MEP-1 to build dams, such as Steven Law's Asia World, are often paid in-kind, often with high-value import permits, Glenn Ford, Acting Director of Myanmar Ivanhoe Copper Co. Ltd., told us.

Comment

¶10. (C) Burma's ambitious hydropower expansion, if seen through to completion, will significantly increase domestic power production - though the overall installed capacities for the new dams are likely grossly overestimated, since Burma's hydropower stations typically only produce during the rainy season. If recent patterns of lower annual rainfall continue, actual output will be lower still. As is typical in other infrastructure projects - whether implemented by domestic or foreign firms - the GOB provides payment in kind rather than cash, which in this case means access to the majority of the power generated by the new plants. Firms are expected to give or sell their share - representing perhaps 75 percent of the total produced - to Burma's neighbors, meaning the Burmese people will see only a fractional benefit from the overall expansion in power production capacity.

VAJDA